

FIG. 1

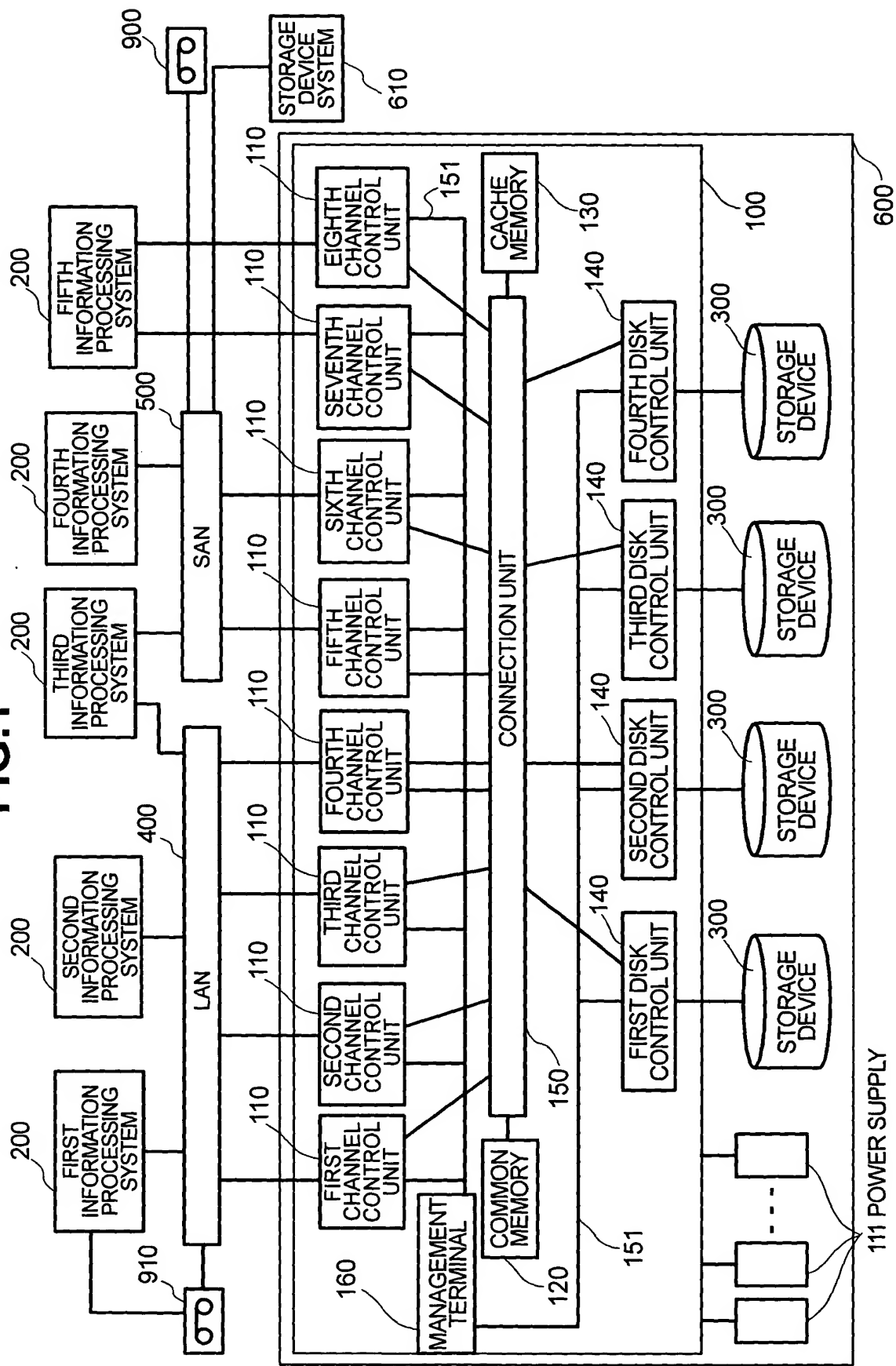


FIG.2

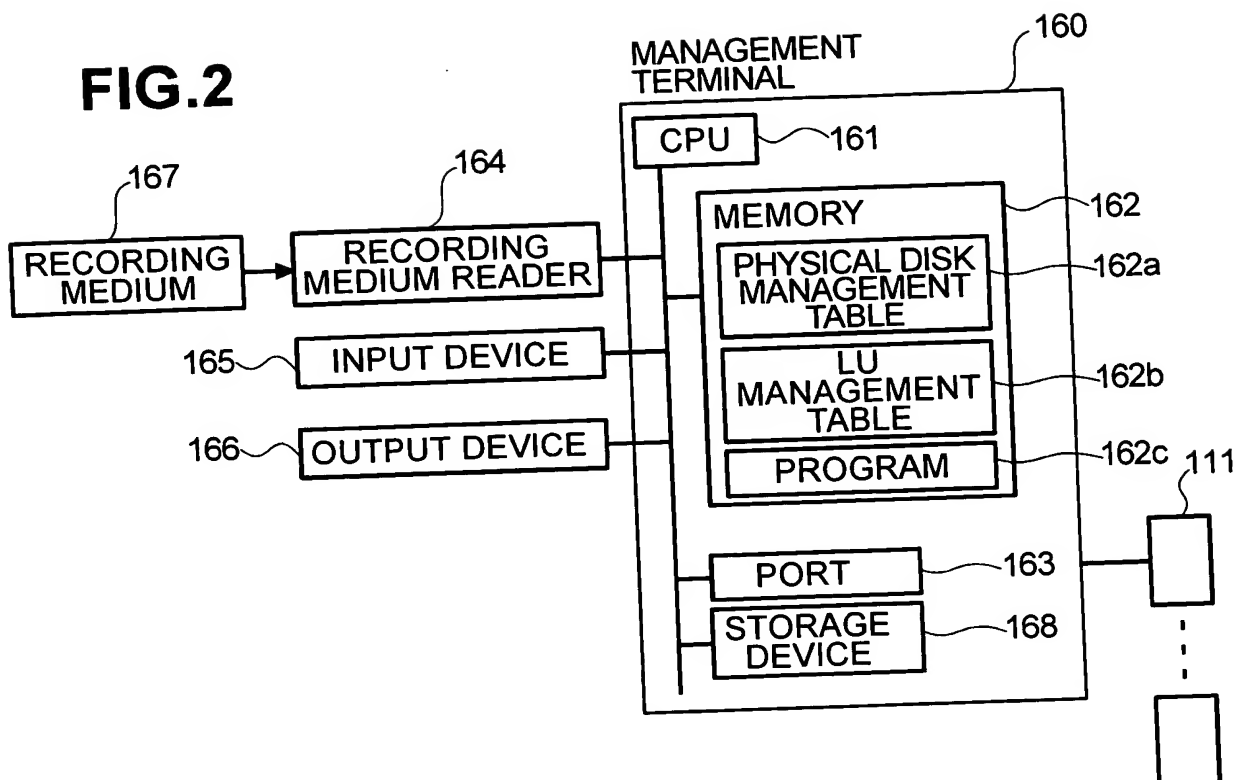


FIG.3

162a

DISK NUMBER	STORAGE CAPACITY	RAID	USE SITUATION
#001	100GB	5	USED
#002	100GB	5	USED
#003	100GB	5	USED
#004	100GB	5	USED
#005	100GB	5	USED
#006	50GB	—	UNUSED
⋮	⋮	⋮	⋮

FIG.4

162b

LU NUMBER	PHYSICAL DISK	STORAGE CAPACITY	RAID
#1	#001, #002, #003, #004, #005	100GB	5
#2	#001, #002, #003, #004, #005	300GB	5
#3	#006, #007,	200GB	1
⋮	⋮	⋮	⋮

FIG. 5

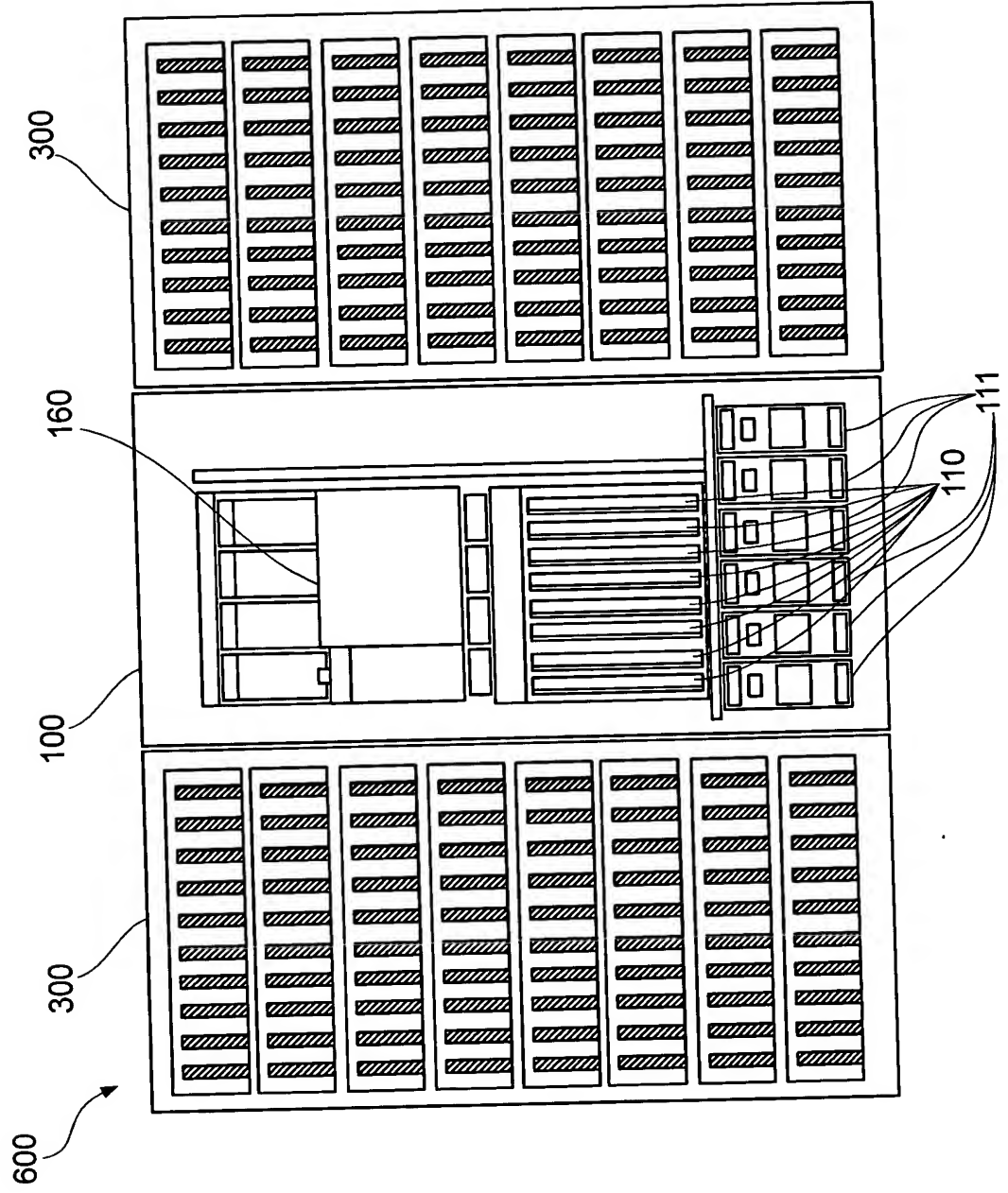


FIG.6

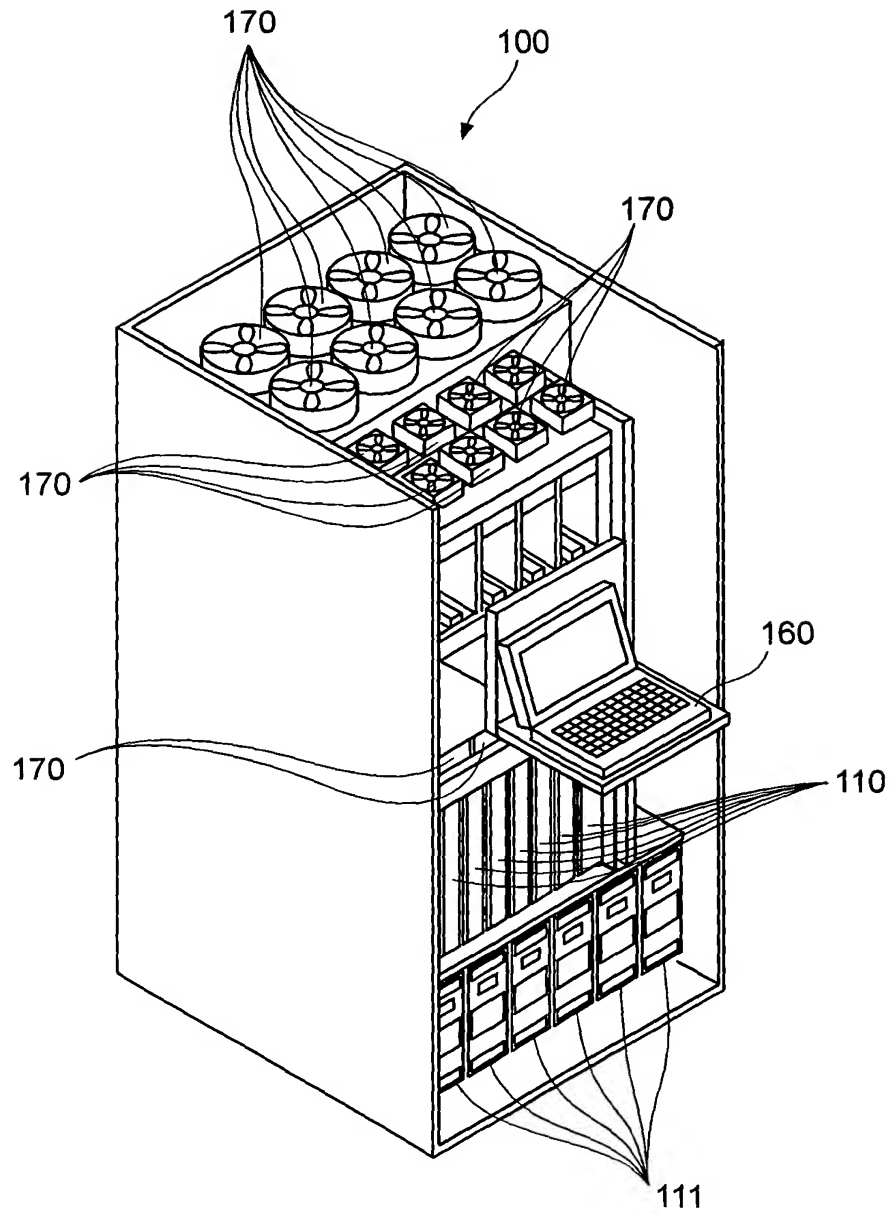


FIG.7

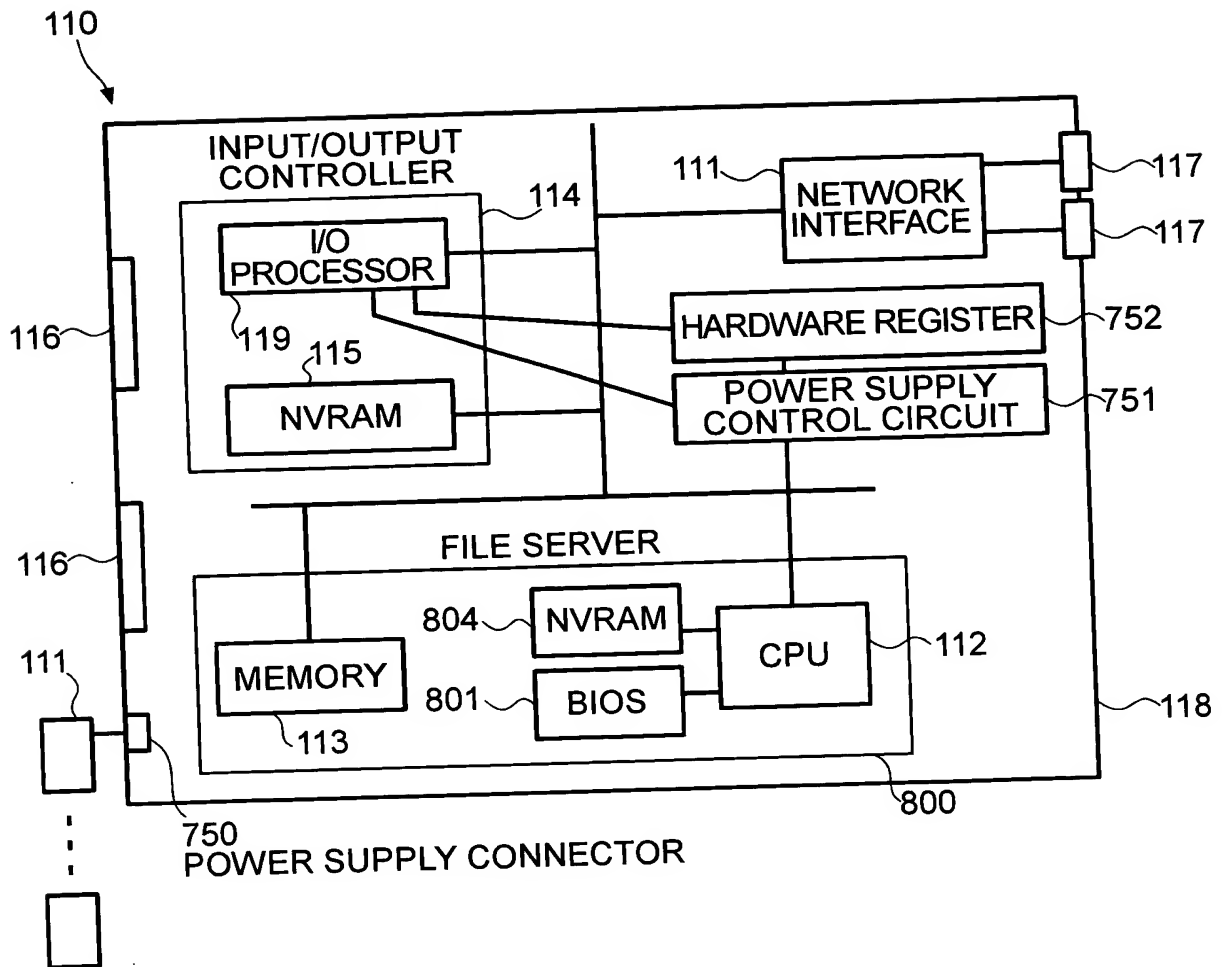


FIG.8

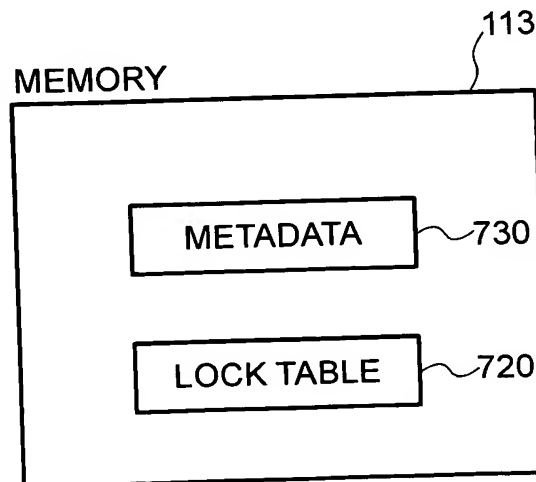


FIG.9

730

METADATA

FILENAME	LEADING ADDRESS	STORAGE CAPACITY	OWNER	TIME INSTANT OF UPDATE
A	7BSA	200MB	X	0:00
B	05BF	50MB	X	7:57
C	1F30	100MB	Y	9:15
D	470B	100MB	Z	15:20
⋮	⋮	⋮	⋮	⋮

FIG.10

721

FILE LOCK TABLE

FILENAME	LOCKING STATE
A	LOCKED
B	—
C	—
D	LOCKED
⋮	⋮

722

LU LOCK TABLE

LU	LOCKING STATE
COMMON	—
1	LOCKED
2	—
⋮	⋮

FIG.11

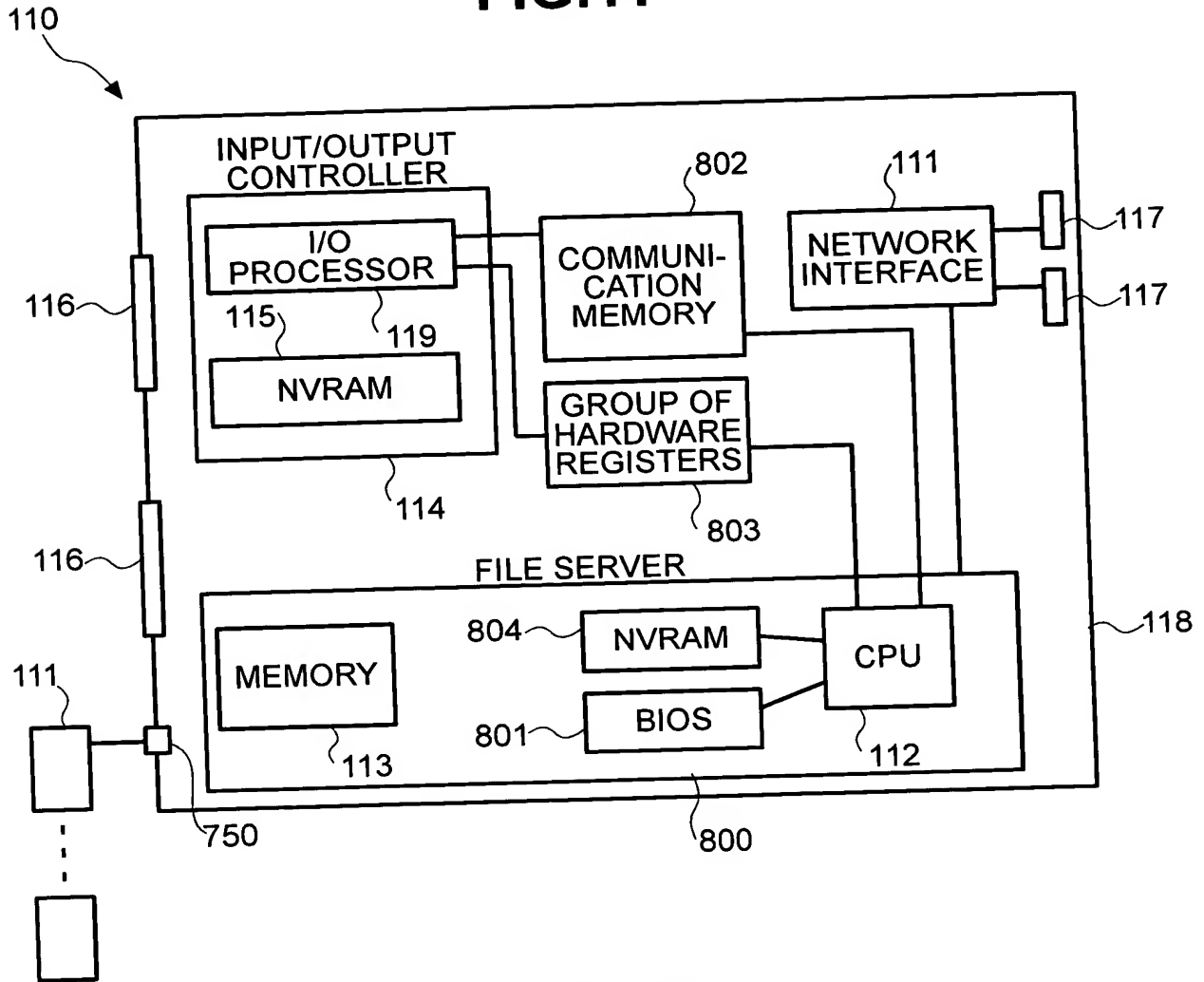


FIG.12

WORD	31	24	23	17	16	8	7	0
0	DIAGNOSIS EXECUTION FLAG		(RESERVED)			TYPE OF ACTIVATED DEVICE		
1	DRIVE NUMBER 1					DRIVE NUMBER 0		
2	TIME INSTANT INFORMATION							
3	(RESERVED)					NUMBER OF COMMAND RETRIES		COMMAND TIMEOUT VALUE
4	TEMPERATURE INFORMATION 3		TEMPERATURE INFORMATION 2		TEMPERATURE INFORMATION 1		TEMPERATURE INFORMATION 0	

FIG.13

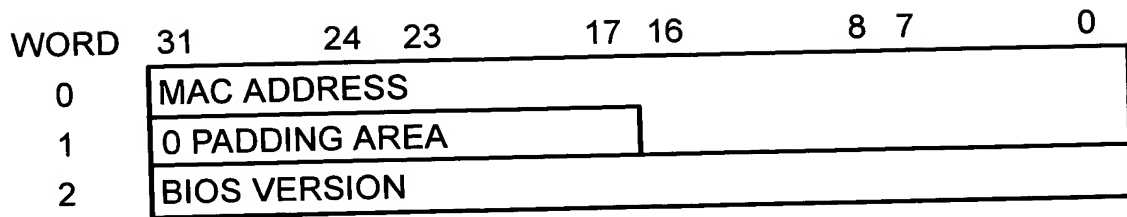


FIG.14

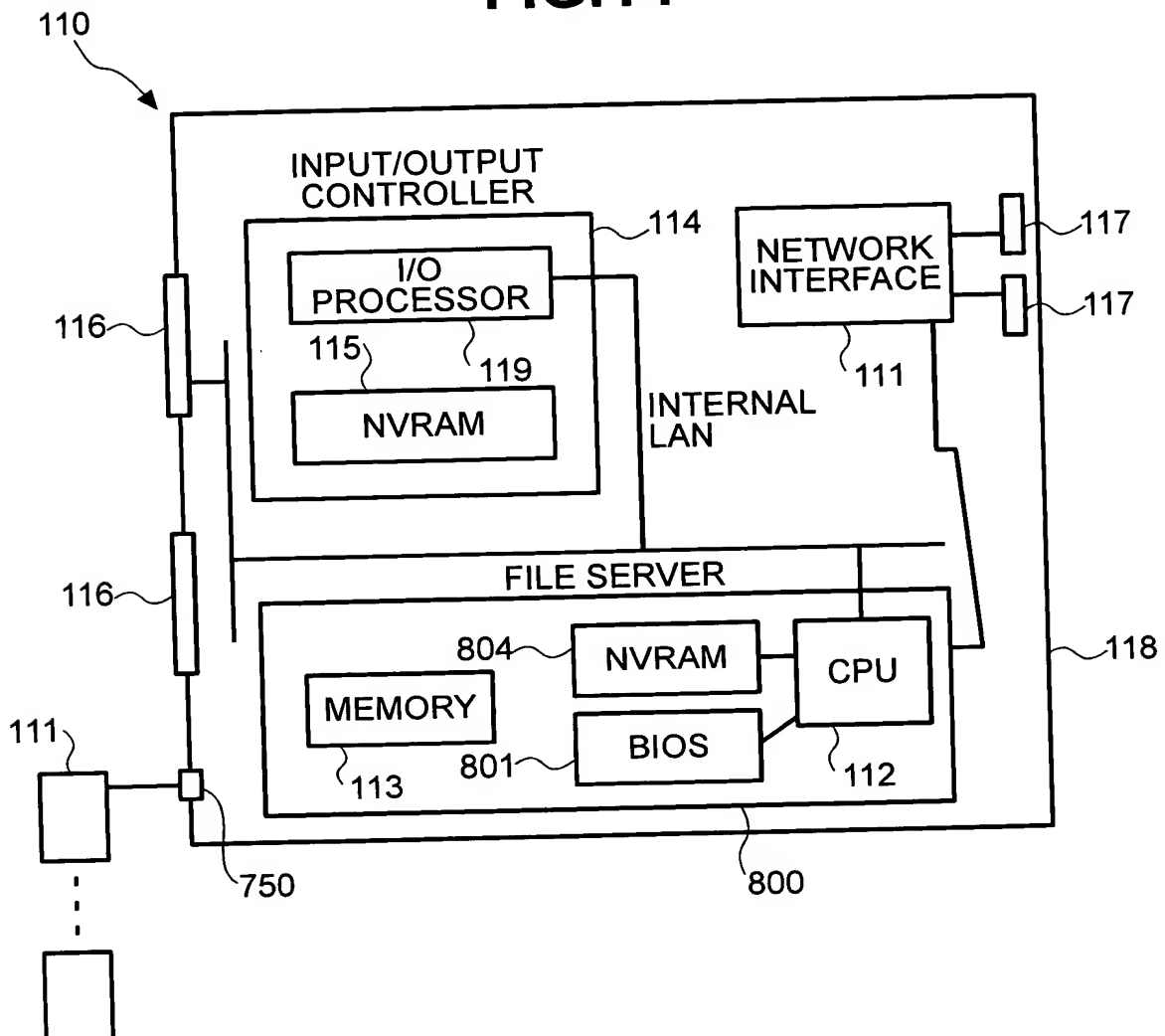


FIG.15

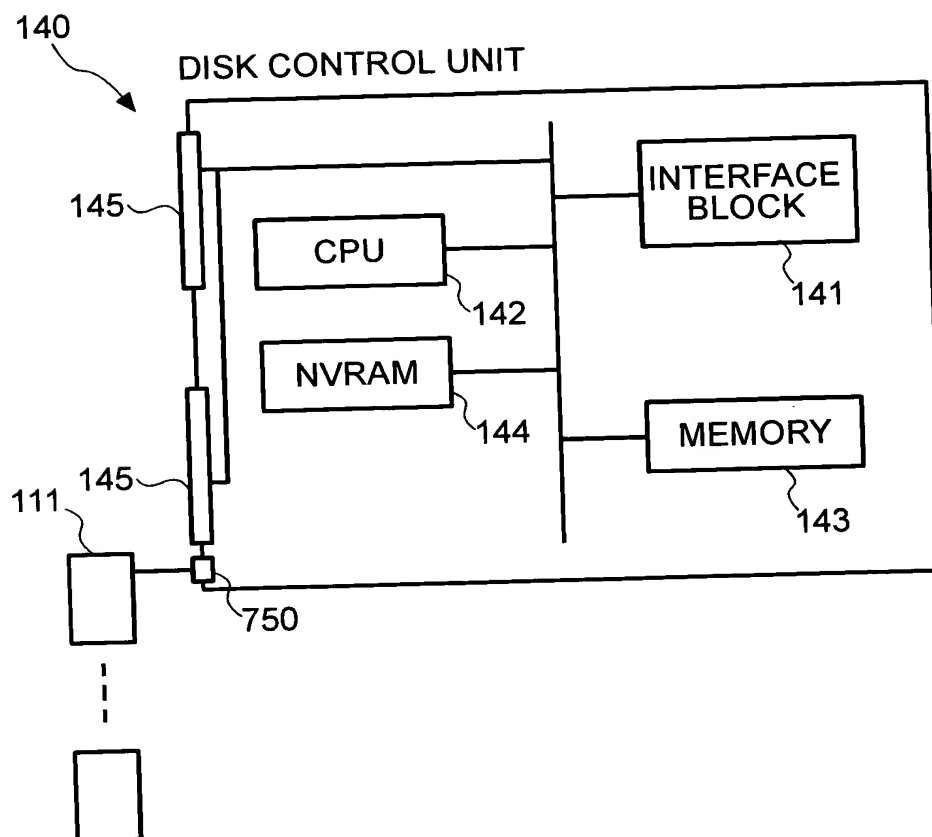


FIG.16

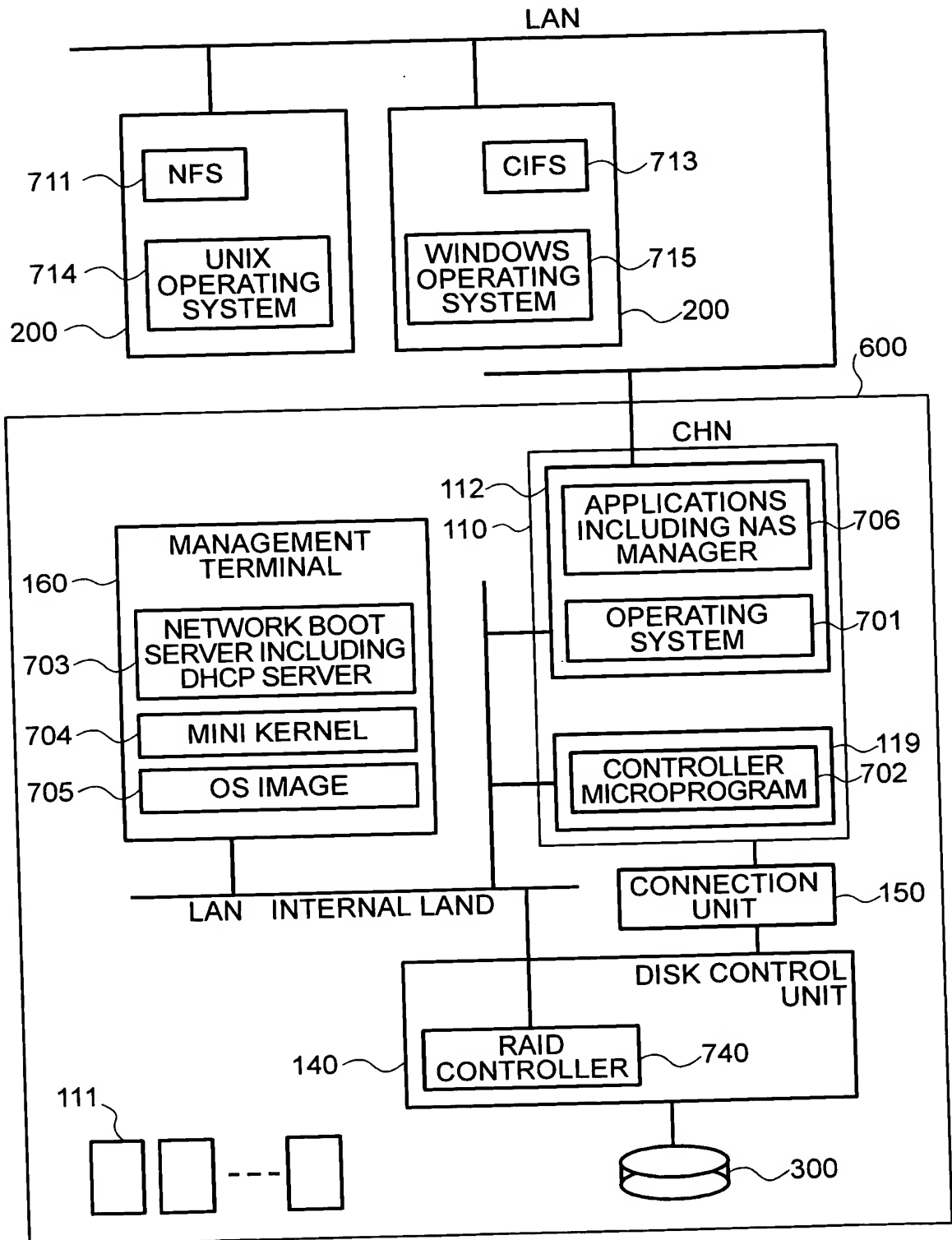


FIG.17

PROCEDURE	CPU	I/O PROCESSOR	MANAGEMENT TERMINAL	STORAGE DEVICES
1	SUPPLYING POWER	SUPPLYING POWER	SUPPLYING POWER	SUPPLYING POWER
2	ACTIVATING BIOS	INITIALIZING HARDWARE	ACTIVATING TERMINAL	ALLOWING DISK DRIVES TO START SPINNING DISKS
3	WAITING FOR DIRECTIVE SENT FROM I/O PROCESSOR			
4	STARTING HARDWARE DIAGNOSIS	← DIAGNOSIS START REQUEST		
5	TERMINATING HARDWARE DIAGNOSIS			
6	STORING MAC ADDRESS →			
7	RE-SUPPLYING POWER ←	RESETTING CPU		
8	ACTIVATING BIOS			DISK DRIVES COMPLETE SPINNING DISKS
9	WAITING FOR DIRECTIVE SENT FROM I/O PROCESSOR			
10			→ ACQUIRING MAC ADDRESS	
11			← DETERMINING NUMBER OF RETRIES, RETRY TIMEOUT VALUE, TYPE OF ACTIVATED DEVICE (NETWORK BOOT)	
12		VERIFYING WHETHER DISK DRIVES HAVE SPUN DISKS		→
13		DETECT WHETHER DISK DRIVES HAVE COMPLETED SPINNING DISKS ←		
14		← STORE TEMPERATURE INFORMATION, NUMBER OF RETRIES, RETRY TIMEOUT VALUE, DIAGNOSIS EXECUTION FLAG (DIAGNOSIS TO BE SKIPPED OR NOT), AND TYPE OF ACTIVATED DEVICE (NETWORK BOOT)		
15	DETECT WHETHER CPU IS DIRECTED TO CONTINUE PROCESSING ←	CPU PROCESSING CONTINUATION DIRECTIVE		
16	ACQUIRE TEMPERATURE INFORMATION, NUMBER OF RETRIES, RETRY TIMEOUT VALUE, DIAGNOSIS EXECUTION FLAG, AND TYPE OF ACTIVATED DEVICE			
17	START NETWORK BOOTING			
18	ISSUING NETWORK BOOTING REQUEST		→ RECEIVING NETWORK BOOTING REQUEST	
19	STARTING INSTALLING OS (NETWORK BOOTING CLIENT)		← TRANSFERRING OS (NETWORK BOOTING SERVER)	
20	TRANSFERRING OS IMAGE			→
21	NOTIFYING COMPLETION OF INSTALLATION	→ SENSING INSTALLATION COMPLETION NOTIFICATION		
22	RE-SUPPLYING POWER ←	RESETTING CPU		
23	ACTIVATING BIOS			
24	WAITING FOR DIRECTIVE SENT FROM I/O PROCESSOR			
25		← STORING TIME INSTANT INFORMATION, TYPE OF ACTIVATED DEVICE (DISK), AND DRIVE NUMBER		
26	DETECTING WHETHER CPU IS DIRECTED TO CONTINUE PROCESSING	CPU PROCESSING CONTINUATION DIRECTIVE		
27	ACQUIRING TIME INSTANT INFORMATION			
28	STARTING BOOTING DISK			
29	LOADING OS ←			
30	ACTIVATING OS			
31	NORMAL OPERATION			